



Patent  
Attorney Docket No. 1020600-000304

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Andrew Hugin THOMPSON et al.

Application No.: 10/510,246

Filing Date: June 27, 2005

Title: METHOD FOR CHARACTERISING ANALYTES

Group Art Unit: 1645

Examiner: Lisa V. Cook

Confirmation No.: 7546

THIRD  
INFORMATION DISCLOSURE STATEMENT  
TRANSMITTAL LETTER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is a THIRD Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

- ☒ No additional fee for submission of an IDS is required.
- ☐ The fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ Charge \_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☐ A check in the amount of \_\_\_\_\_ is enclosed for the fee due.
- ☐ Charge \_\_\_\_\_ to credit card. Form PTO-2038 is attached.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BUCHANAN INGERSOLL PC

By

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Date:

2/27/06

**Buchanan Ingersoll PC**

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(8/05)



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

Andrew Hugin THOMPSON et al.

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For: METHOD OF CHARACTERISING  
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**THIRD INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed.

The documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

All of the references listed on the attached Form PTO-1449 are cited in the specification of the above-captioned application.

**THIRD** Information Disclosure Statement

Application No. 10/510,246

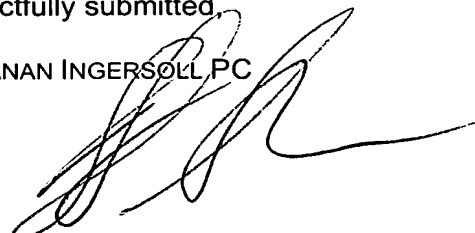
Attorney's Docket No. 1020600-000304

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To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BUCHANAN INGERSOLL PC



Date 02/27/2006

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**Buchanan Ingersoll PC**

ATTORNEYS

including attorneys from Burns Doane Swecker & Mathis

# **THIRD INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 3

**Complete if Known**

Application Number 10/510,246  
 Filing Date June 27, 2005  
 First Named Inventor Andrew Hugin Thompson et al.  
 Examiner Name Lisa V. Cook  
 Attorney Docket Number 1020600-000304

**U.S. PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS						
					Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec
	98/32876	A1	WIPO	07/30/1998							X

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	D.J.C. Pappin et al., "RAPID IDENTIFICATION OF PROTEINS BY PEPETIDE-MASS FINGERPRINTING", Current Biology, Vol. 3, pp. 327-332, 1993.
	Matthias Mann et al., "USE OF MASS SPECTROMETRIC MOLECULAR WEIGHT INFORMATION TO IDENTIFY PROTEINS IN SEQUENCE DATABASES", Biological Mass Spectrometry, Vol. 22, pp. 338-345, 1993.
	John R. Yates et al., "PEPTIDE MASS MAPS: A HIGHLY INFORMATIVE APPROACH TO PROTEIN IDENTIFICATION", Analytical Biochemistry, Vol. 214, pp. 397-408, 1993.
	Eberhard Krause et al., "THE DOMINANCE OF ARGININE-CONTAINING PEPTIDES IN MALDI-DERIVED TRYPTIC MASS FINGERPRINTS OF PROTEINS", Anal. Chem., Vol. 71, pp. 4160-4165, 1999.
	Valentina Bonetto et al., "C-TERMINAL SEQUENCE DETERMINATION OF MODIFIED PEPTIDES BY MALDI MS", Journal of Protein Chemistry, Vol. 16, No. 5, pp. 371-374, 1997.
	Francesco L. Brancia et al., "IMPROVED MATRIX-ASSISTED LASER DESORPTION/IONIZATION MASS SPECTROMETRIC ANALYSIS OF TRYPTIC HYDROLYSATES OF PROTEINS FOLLOWING GUANIDINATION OF LYSINE-CONTAINING PEPTIDES", Rapid Communications in Mass Spectrometry, Vol. 14, pp. 2070-2073, 2000.
	Francesco L. Brancia et al., "A COMBINATION OF CHEMICAL DERIVATISATION AND IMPROVED BIOINFORMATIC TOOLS OPTIMISES PROTEIN IDENTIFICATION FOR PROTEOMICS", Electrophoresis, Vol. 22, pp. 552-559, 2001.
	Masahiko Okamoto et al., "HIGH-SENSITIVITY DETECTION AND POSTSOURCE DECAY OF 2-AMINOPYRIDINE-DERIVATIZED OLIGOSACCHARIDES WITH MATRIX-ASSISTED LASER DESORPTION/IONIZATION MASS SPECTROMETRY", Anal. Chem., Vol. 69, pp. 2919-2926, 1997.
	Nanying Bian et al., "DETECTION VIA LASER DESORPTION AND MASS SPECTROMETRY OF MULTIPLEX ELECTROPHORE-LABELED ALBUMIN", Rapid Communications in Mass Spectrometry, Vol. 11, pp. 1781-1784, 1997.

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Substitute for form 1449A/PTO & 1449B/PTO			<b>Complete if Known</b>		
<b>THIRD INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Application Number</b>	10/510,246	
			<b>Filing Date</b>	June 27, 2005	
			<b>First Named Inventor</b>	Andrew Hugin Thompson et al.	
			<b>Examiner Name</b>	Lisa V. Cook	
<b>Sheet</b>	<b>2</b>	<b>of</b>	<b>3</b>	<b>Attorney Docket Number</b>	1020600-000304

NON-PATENT LITERATURE DOCUMENTS	
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Samy Abdel-Baky et al., "GAS CHROMATOGRAPHY/ELECTRON CAPTURE NEGATIVE-ION MASS SPECTROMETRY AT THE ZEPTOMOLE LEVEL", Anal. Chem., Vol. 63, pp. 2986-2989, 1991.
	Kenneth D. W. Roth et al., "CHARGE DERIVATIZATION OF PEPTIDES FOR ANALYSIS BY MASS SPECTROMETRY", Mass Spectrometry Review, Vol. 17, pp. 255-274, 1998.
	Matthias Glueckmann et al., "THE INITIAL ION VELOCITY AND ITS DEPENDENCE ON MATRIX, ANALYTE AND PREPARATION METHOD IN ULTRAVIOLET MATRIX-ASSISTED LASER DESORPTION/IONIZATION", Journal of Mass Spectrometry, Vol. 34, pp. 467-477, 1999.
	Kuang Jen Wu et al., "MATRIX-ASSISTED LASER DESORPTION TIME-OF-FLIGHT MASS SPECTROMETRY OF OLIGONUCLEOTIDES USING 3-HYDROXYPICOLINIC ACID AS AN ULTRAVIOLET-SENSITIVE MATRIX", Rapid Communications in Mass Spectrometry, Vol. 7, pp. 142-146, 1993.
	K. Strupat et al., "2,5-DIHYDROXYBENZOIC ACID: A NEW MATRIX FOR LASER DESORPTION-IONIZATION MASS SPECTROMETRY", International Journal of Mass Spectrometry and Ion Processes, Vol. 111, pp. 89-102, 1991.
	R. C. Beavis et al., "ALPHA-CYANO-4-HYDROXYCINNAMIC ACID AS A MATRIX FOR MATRIX-ASSISTED LASER DESORPTION MASS SPECTROMETRY", Organic Mass Spectrometry, Vol. 27, pp. 156-158, 1992.
	Ronald C. Beavis et al., "CINNAMIC ACID DERIVATIVES AS MATRICES FOR ULTRAVIOLET LASER DESORPTION MASS SPECTROMETRY OF PROTEINS", Rapid Communications in Mass Spectrometry, Vol. 3, No. 12, pp. 432-435, 1989.
	Michael C. Fitzgerald et al., "BASIC MATRICES FOR THE MATRIX-ASSISTED LASER DESORPTION/IONIZATION MASS SPECTROMETRY OF PROTEINS AND OLIGONUCLEOTIDES", Anal. Chem., Vol. 65, pp. 3204-3211, 1993.
	Victor L. Talrose et al., "INSIGHT INTO ABSORPTION OF RADIATION/ENERGY TRANSFER IN INFRARED MATRIX-ASSISTED LASER DESORPTION/IONIZATION: THE ROLE OF MATRICES, WATER AND METAL SUBSTRATES", Rapid Communications in Mass Spectrometry, Vol. 13, pp. 2191-2198, 1999.
	Sven Ring et al., "A COMPARATIVE STUDY OF A LIQUID AND A SOLID MATRIX IN MATRIX-ASSISTED LASER DESORPTION/IONIZATION TIME-OF-FLIGHT MASS SPECTROMETRY AND COLLISION CROSS SECTION MEASUREMENTS", Rapid Communications in Mass Spectrometry, Vol. 14, pp. 515-519, 2000.
	Eric T. P. Sze et al., "FORMULATION OF MATRIX SOLUTIONS FOR USE IN MATRIX-ASSISTED LASER DESORPTION/IONIZATION OF BIOMOLECULES", J. Am. Soc. Mass Spectrometry, Vol. 9, No. 2, pp. 166-174, 1998.
	Michael Karas et al., "MATRIX-ASSISTED LASER DESORPTION IONIZATION MASS SPECTROMETRY", Mass Spectrometry Reviews, Vol. 10, pp. 335-357, 1991.
	T. William Hutchens et al., "NEW DESORPTION STRATEGIES FOR THE MASS SPECTROMETRIC ANALYSIS OF MACROMOLECULES", Rapid Communications in Mass Spectrometry, Vol. 7, pp. 576-580, 1993.
	Linxiao Xu et al., "ELECTROPHORE MASS TAG DIDEOXY DNA SEQUENCING", Anal. Chem., Vol. 69, pp. 3595-3602, 1997.
	Steven P. Gygi et al., "QUANTITATIVE ANALYSIS OF COMPLEX PROTEIN MIXTURES USING ISOTOPE-CODED AFFINITY TAGES", Nature Biotechnology, Vol. 17, pp. 994-999, October 1999.
	Robert L. Geahlen et al., "A GENERAL METHOD FOR PREPARATION OF PEPTIDES BIOTINYLATED AT THE CARBOXY TERMINUS", Analytical Biochemistry, Vol. 202, pp. 68-70, 1992.
	David G. Sawutz et al., "SYNTHESIS AND MOLECULAR CHARACTERIZATION OF A BIOTINYLATED ANALOG OF [LYS]BRADYKININ", Peptides, Vol. 12, pp. 1019-1024, 1991.
	Sesha Natarajan et al., "SITE-SPECIFIC BIOTINYLATION; A NOVEL APPROACH AND ITS APPLICATION TO ENDOTHELIN-1 ANALOGS AND PTH-ANALOG", Int. J. Peptide Protein Res., Vol. 40, pp. 567-574, 1992.

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